



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/614,480	07/07/2003	Masayuki Kusuda	15162/05590	6026

24367 7590 10/05/2005

SIDLEY AUSTIN BROWN & WOOD LLP
717 NORTH HARWOOD
SUITE 3400
DALLAS, TX 75201

EXAMINER

ELLIS, SUEZU Y

ART UNIT	PAPER NUMBER
2878	

DATE MAILED: 10/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

H.D

Office Action Summary

Application No.

10/614,480

Applicant(s)

KUSUDA, MASAYUKI

Examiner

Suezu Ellis

Art Unit

2878

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 August 2005.
 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-6 and 8-20 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1,3-6 and 8-20 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☒ The drawing(s) filed on 07 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date _____.
 4) ☐ Interview Summary (PTO-413)
 Paper No(s)/Mail Date _____.
 5) ☐ Notice of Informal Patent Application (PTO-152)
 6) ☐ Other: _____.

RESPONSE TO AMENDMENT

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 3-6, and 8-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claim 1, claim language in line 2 recites "an electric signal". However, lines 4, 6, 7, 9 and 12 also recite "an electric signal". Are all these electric signals different or is it the same electric signal? If it is the same electrical signal throughout the claim, please replace "an electric signal" with --the electric signal-- in lines 4, 6, 7, 9 and 12. For examining purposes, the electric signal will be considered to be the same electric signal from line 2.

Claim 3, lines 5 and 7 and claim 5 line 3 recite "an electric signal". Is this electric signal different from that in claim 1? For examining purposes, the electric signal will be deemed as the same as that recited in claim 1.

Claim 3 recites the limitations "the image signal" in 5 and "the noise signal" in line 7. There is insufficient antecedent basis for this limitation in the claim. Please correct.

With respect to claim 6, lines 2, 5, 6, 7, 8 and 10 recite "an electric signal". Are all these different electric signals or the same signal? For examining purposes, it will be deemed the same electric signal. For examining purposes, it will be deemed as the same electric signal. Also in claim 6. the modifier of the claim says the claim is an original claim, however the claim has been amended. Please correct.

Claim 8 line 6, claim 9 line 6 and claim 10, lines 6 and 11 recite "an electric signal". Is this electric signal different from that in claim 6? For examining purposes, the electric signal will be deemed the same as the electric signal in claim 6.

With respect to claim 8, claim language recites the limitation "the noise signal" in line 8. There is insufficient antecedent basis for this limitation in the claim. Please correct.

In claim 9, line 8 and claim 10, line 13, claim language recites the limitations "the image signal" and "the image pickup operation". There is insufficient antecedent basis for this limitation in the claim. Please correct.

With respect to claim 11, it is unclear as to how a reference voltage has ternary. Does applicant mean the reference voltage *is* ternary? For examining purposes, the

Art Unit: 2878

claim language will be interpreted as the reference voltage being ternary. However, it is unclear what applicant means by it being ternary. Please clarify.

With respect to claim 13, lines 4, 7, 8, 9, 17, 18, and 23 recite "an electric signal". Are all these different electric signals or the same signal? Please clarify. For examining purposes, it will be deemed the same electric signal. For examining purposes, it will be deemed as the same electric signal.

Claim 20, line 3 recites "an electric signal". Is this electric signal different from that in claim 13? For examining purposes, the electric signal will be deemed the same as the electric signal in claim 6.

Claims not specifically addressed are indefinite due to their dependency.

Allowable Subject Matter

Claims 1, 2-6 and 8-20 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

With respect to claim 1, prior art fails to teach or reasonably suggest a solid state image pickup device comprising a reference voltage for integrating an electric signal from a photoelectric converting circuit being applied to the integrating circuit and an electric potential of the reference voltage being variable wherein the electric signal obtained by integration in the integrating circuit is led to an output circuit and the electric potential of the reference voltage is temporarily changed, in addition to the other limitations of the claim.

With respect to claim 6, prior art fails to teach or reasonably suggest a solid state image pickup device comprising an MOS transistor to which a predetermined bias voltage is applied and which converts an electric signal output from a photoelectric converting element into an electric signal proportional to a logarithm value of a quantity of incident light so as to output the electric signal, a capacitor in which the electric signal output from the MOS transistor is given to one end so as to be integrated, and a reference voltage whose electric potential is variable is applied to the other end of a capacitor and wherein the electric potential of the reference voltage is changed in synchronization with an ON/OFF operation of a switch, in addition to the other limitations of the claim.

With respect to claim 13, prior art fails to teach or reasonably suggest a solid state image pickup device comprising a plurality of pixels, an MOS transistor to which a predetermined bias voltage is applied and which converts an electric signal output from a photoelectric converting element into an electric signal proportional to a logarithm value of a quantity of incident light so as to output the electric signal, a capacitor in which the electric signal output from the MOS transistor is given to one end so as to be integrated and of which, a reference voltage whose electric potential is variable is applied to the other end and wherein the electric potential of the reference voltage is changed in synchronization with at least one of the operations of a second switch at the time of an image pickup operation and of detecting a dispersion of sensitivity of the pixels.

Claims not specifically addressed would be allowable due to their dependency.

Telephone/Fax Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Suez Ellis whose telephone number is 571-272-2868. The examiner can normally be reached on 8:30am-5pm (Monday-Friday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Porta can be reached on 571-272-2444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Stephone B. Allen
Primary Examiner